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AUGUST 1981

ORANGE COUNTY AMATEUR RADIO CLUB

P.O. BOX 95, ORANGE, CALIF. 92668

AUGUST 1981

EITHER OR

Depending on the availability of speakers, our August program will feature a visit by Hamid, C5ACA, from The Gambia, and Peter, DL9XG from Northern Germany. They will share with us some insites on ham radio from the other side of the path. If the vagaries of travel QRM this program we will QSY to a program by Robin, KA6HNY on photovoltaics, (Solar Power). Both programs promise to be very interesting and we expect a sizable turn out.

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AUCTION: Remember September 18(our regular meeting night) will be the annual club auction. This is always fb fun for all. Now would be a good time to dig into your various junque boxes and convert some of that excess equipment into \$\$\$\$\$. The auction rules have been simplified this year. Circulars should be available at the August meeting. Please help us promote this event.

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SET: Fried, WA6WZO reminds us that the annual simulated emergency test is scheduled for October 17. (ed Comment) Maybe this year we will find out in advance how we can participate from the comfort of our homes)

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CONGRADULATIONS: SUE Ann Smith(1st harmonic of Pres, Frank), Age 11 and now KA6QVU. Roger, N6EGC just upgraded to Advanced. Bruce Rossi now is KA6QON. Terry Mathers, WB6IHZ just submitted his cards for DXCC. Also, someone with the call KA6CZI was seen lurking near the FCC examining point. Reports of that "lurk" are not favorable, however.

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S.W. Division Convention: October 9,10,11 will be the dates for this year's convention. It will be held in Scottsdale Arizona and will include a tour of Senator Goldwater's shack. If you would like more information contact Robin, KA6HNY or Fried, WA6WZO

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TVI: With propagation finally coming back now is a good time to clean up the shack ground system and check out that marginal TV antenna. Why does good propagation correspond with the NFL season?????

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BoB, AF6C will bring us the world of 10 meter conversions, FM and DF'ing in October. Should be a great meeting.

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\*\*\*\*\*ORANGE COUNTY AMATEUR RADIO CLUB 1981\*\*\*\*\*

# CLUB OFFICERS

President	FRANK SMITH	WA6VKZ	838-3271
Vice President	ROBIN HOFF	KA6HNY	731-4803
Treasurer	FRANK GREGG	WB6KJS	968-1450
Secretary	HOWARD ATWELL	KA6CZI	779-5797
Activities	KEN KONECHY	W6HHC	541-6249
Membership	BOB TEGEL	KD6XO	554-0836
Publicity	SID SHISHIDO	N6AQC	521-8380
T V I	BOB ECKWEILER	AF6C	639-5074
M A L	ERNIE PRITCHARD	WA6FOW	530-0738
M A L	STEWART Mac INNIS	W6MIL	639-7384
*****			
EDITOR	JOHN CHRISTOPHER	*KE6CE	557-6399
*****			

## NETS:

Tuesdays: 10 Meter SSB-----On or about 28.775 Mhz at 7:00 P M local time. Need some 10 10 numbers or info, why not check into this net. Look for W6ZE as Net Control.

Wednesdays: 15 Meter CW Novice Net--On or about 21.175 Mhz at 7:00 P M local time. All novices are invited to join in. We will slow down for you. Look for W6ZE as Net Control.

" " 15 Meter SSB-----On or about 21.375 Mhz at 8:00 P M local time. Look for W6ZE as Net Control.

" " 2 Meter Simplex Net--Look for W6ZE as Net Control on 146.55 Mhz simplex at 9:00 P M local time.

## ORANGE COUNTY AMATEUR RADIO CLUB BREAKFAST:

PLACE: MILE SQUARE COUNTRY CLUB HOUSE  
Located midway between Brookhurst and Euclid, on the South side of the Park, in the city of Fountain Valley.

TIME: Around 8:30 AM

Date: First Saturday of each month.

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OCARC\*\*OUR NEXT CLUB MEETING WILL BE HELD

AUGUST 21, 1981

MERCURY SAVINGS & LOAN  
1095 IRVINE BLVD  
TUSTIN, CALIFORNIA

TIME: 7:30 P M

Everyone is welcome to come. Why not bring a friend or neighbor and introduce them to the Amateur hobby and happenings!

ORANGE COUNTY AMATEUR RADIO CLUB Inc.  
FINANCIAL STATEMENT  
JULY 1981

INCOME:

DUES.....\$32.50  
BADGES.....\$ 3.00  
SWEEPSTAKES.....\$53.00  
COFFEE.....\$ 6.23  
TOTAL \$94.83

EXPENSES:

FIELD DAY FOOD..\$137.50  
COFFEE SUPPLIES.\$ 9.30  
STAMPS.....\$19.80  
DONUTS.....\$14.94  
RF PRINTING.....\$37.21  
BADGES.....\$ 3.18  
TOTAL \$221.93

CHECKING ACCOUNT BALANCE (JULY 30, 1981)=\$128.56  
SAVINGS ACCOUNT BALANCE = \$772.03  
GENERATOR FUND ( IN CHECKING ACCOUNT) = \$156.75

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ORANGE COUNTY AMATEUR RADIO CLUB  
CLUB MINUTES  
JULY 17, 1981

1. There was no Early Bird drawing.
2. Minutes of the June minutes were accepted as corrected.  
-Item 5: The checking account balance should read \$141.00  
-Item 11: The Field Day operations and rules were discussed by Bob, AF6C.
3. COMMITTEE REPORTS:  
The General Class license training course has been discontinued due to vacations. It will however begin again on September 15th 1981.  
V I P Program--Jack Hicks, of Circle View School, just missed passing the exam for the General Class ticket. Hang in there Jack!!
4. Roll call: All Officers were present with the exception of the Membership Chairman.
5. Treasurers Report was given by Frank Gregg, WB6KJS.  
Income=\$83.38\*\*\*\*\*Expenses=\$84.39\*\*\*\*\*Food for Field Day=\$137.58
6. Frank, WB6KJS, also introduced the new members of the club.
7. Unfinished Business:  
BOB, AF6C, gave a short Field Day summary. In all, according to Bob's computer tabulations, the club made 2,405 contacts. Point totals are not available at this time.
8. New Business:  
Frank, WA6VXZ, and Club VP Robin, reported that the 1981 Auction Rules have been drawn up and are awaiting printing.

Continued .

9. Announcements:  
Fried, WA6WZO, made several announcements concerning ARES activities. These concerned the ARES division campout, at SHADY COVE Campgrounds, and a traffic managers meeting at the home of KA6A. Jim Coleman. All interested parties see Fried for the details.
10. For the good of the club:  
-Club efforts for Field Day at EL TORO this year, were reported in the Marine Corp paper "FLIGHT JACKET".  
-Sam Goda, WA6JRA, reported on several technical improvements he has made to the Collins 75A4 and 75SVP.  
-Alex, W6RE, played the portion of the last WESTLINK tape concerning the FCC action against R. Burton, WB6JAC  
-Thanks were paid to all Field Day captains, and their and all participants in general. GOOD JOB !!  
-Introduction of members and visitors.
11. Program:  
Robin, KA6HNY, club VP, introduced Wayne Overbeck, N6NB, who presented a very informative program on a variety of antenna configurations and their performance. This was followed by a slide show by Ken, W6HHC, on this years Field Day.
12. Frank Gregg, WB6KJS, won the Mr. RF award.
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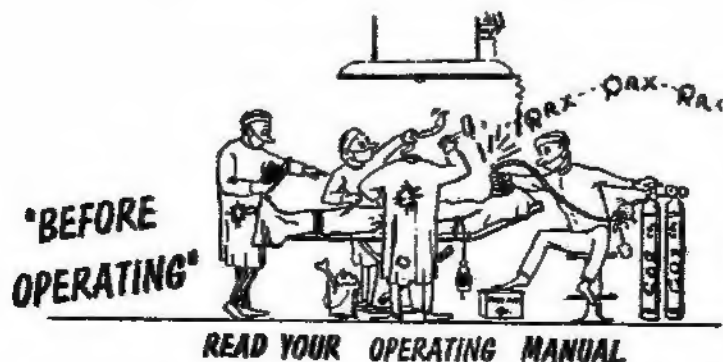
ARRL Bulletin NR 71:: As previously announced by ARRL Bulletin Nr 63, FCC has granted an extension of time in which to file comments on the plain language rules in Docket 80/729, until August 21. ARRL will support the concept of plain language rules, but will propose necessary modifications so that there will be no degradation of the Amateur Radio service. If you have comments concerning the proposed plain language rules, please contact ARRL promptly AR

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Field Day Message: HR NR 72 P WLAW 53 THE WHITE HOUSE WASHINGTON DC JUNE 26

TO ALL RADIO AMATEURS BT I AM HAPPY TO SEND MY SINCERE BEST WISHES AND APPRECIATION TO THE NEARLY 400,000 AMATEUR RADIO OPERATORS WHO STAND READY WITH EQUIPMENT AND SKILLS TO SERVE IN THE PUBLIC INTEREST IN TIMES OF DISASTER X MAY YOUR 45TH ANNUAL AMERICAN RADIO RELAY LEAGUE FIELD DAY EMERGENCY PREPAREDNESS EXERCISE BE SUCCESSFUL X SINCERLY BT RONALD REGAN AR

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# The Handicapper's Special — Wheelchair Mobile

Being confined to a wheelchair hasn't slowed this ham down. Here's how he used a converted CB rig to get into the action on 10 meters.

By John P. Christopher,\* WD6GXZ / *Now K6CE*

**T**wenty eight years ago, I was born with muscular dystrophy. Since age six I have been confined to a wheelchair. I have learned to know these four-wheel contraptions fairly well and have never let the wheelchair stop me from achieving my goals and enjoying life to its fullest.

Two years ago I was introduced to Amateur Radio, and in that time I have learned many new and valuable skills. Over the past few months I have pondered on how I could combine my motorized wheelchair and my new-found hobby. After some thought, I came up with an idea that was sure to bring about a new twist to 10-meter operation. If amateurs could operate mobile from their cars, planes and boats with good results, then why not try it from a different angle? A wheelchair mobile!

I call my project "The Handicapper's Special" because of the special ways that a mobile CB radio can be converted and modified for 10-meter operation. Depending on the type of CB you have, you can convert it to 10 meters with very little trouble.† An ssb CB radio can be set up to operate a-m, fm, ssb or even cw. [Editor's Note: Any CB that has ssb capability should be adaptable to cw. The newer 40-channel types, because of the PLL, are



The author operates his converted CB radio on 10 meters. The rig and antenna are mounted on the left arm of his motorized wheelchair.

good candidates for conversion to fm-type operation.]

## Choosing a Rig

The average, older model 23-channel CB conversion will transmit and receive

on about 300 kHz of 10 meters, and the newer, 40-channel sets will cover between 500 and 600 kHz. Most of the ssb-type CB units can be modified to cover any portion of the 10-meter phone band. So, as you can see, there is a lot to consider when converting one of these mobile units. Whatever rig you choose, it is bound to give you something special to work with on 10 meters.

The radio unit I picked to use in my project was the Cobra 134 a-m/ssb mobile transceiver. Although it is well known for its good operating characteristics and receiver section, the main reason I chose this radio was that it would fit just right on the arm of my motorized wheelchair. I selected the 28,500 to 28,800 kHz portion of 10 meters for my operation.

Having no experience in converting a CB unit to the 10-meter band and lacking the proper tools and equipment to do the job, I elected to send the unit out to a shop that specializes in this area. In just a few short weeks I was ready for 10-meter operation.

After reading the new instructions that came back with the converted radio, I proceeded to hook it to a 12-volt power supply to make sure that the radio was going to function properly and see what the new rf output would be. After attaching my wattmeter and dummy load, I keyed the radio in the a-m mode and spoke into the mike. With modulation, the radio measured 7.5 watts. Power output in the ssb mode was between 8 and 14 watts. I knew that I would have sufficient

\*522 West Alpine, Santa Ana, CA 92707

†See Lange, "10-Meter Conversion of CB Transceivers," February 1967 QST, page 20 and Mudge, "CB to Ten Meters," July 1978 QST, page 26.



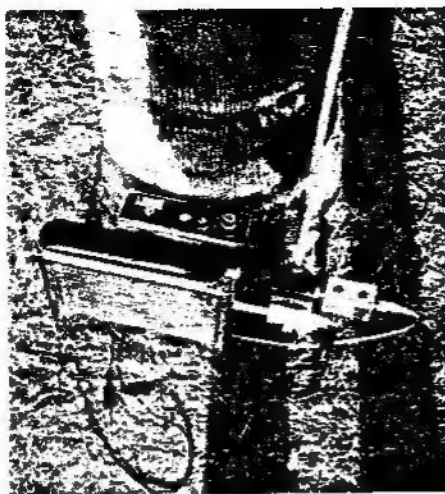
power to communicate on 10 meters with satisfactory results.

#### Mounting the Unit

With the radio checking out fine so far, I was ready to mount the conversion on the left arm of the wheelchair. A CB slide mount was used to accomplish this. The unit could now slide down into place on the arm of the chair, and it could be easily removed when not in use.

Power was provided from the motorized wheelchair battery system. My chair uses a 70-amp, 12-volt car-type battery. The battery is housed in a box that is secured to a battery tray on the wheelchair. A 1/4-inch phone jack was installed on the battery box and a 1/4-inch phone plug was attached to the Cobra's power cord. The 1/4-inch phone jack was wired to the positive and negative terminals of the battery. When the power cord is plugged into the jack on the battery box I have power to run the radio. If you wire a radio to a wheelchair having a 24-volt system, you will need to use only one of the 12-volt batteries in the system. [Editor's Note: If the negative terminal of the 24-volt system is grounded to the metal of the wheelchair, the radio must be connected to the 12-volt battery whose negative terminal serves as the negative terminal of the system.] Do not connect a CB or CB conversion to both batteries. Most CB radios are able to handle only 16 volts maximum. If you apply a 24-volt charge, you can burn out the radio as well as short out the batteries.

Now that my "Handicapper's Special" was mounted on my wheelchair and power was going to it, I needed an antenna. It had to be simple to work with, easy to install on the wheelchair and broadbanded enough to cover the 300 kHz that



To disconnect the entire unit for service or storage, the power is unplugged and the entire arm is lifted from the wheelchair.

I would be working. It also had to have a low SWR, so there would be a good power transfer. I selected a coil for 10-meter use and attached it to the bottom portion of a vertical CB antenna. With the use of a mini antenna tuner at the base of the antenna, I was able to get the SWR down to 1.5:1 across the entire frequency range that I had to work with. I mounted the antenna on the left arm of the chair by means of a mirror-mount clamp that many people use on the side mirrors of their pickups, vans and semi trailer trucks. I was now ready to put "The Handicapper's Special" into operation.

#### Operating Wheelchair Mobile

I turned the radio on, increased the

volume to a comfortable level and turned the RF GAIN control down a bit so that I would not get blasted out of the wheelchair. I could hear much activity, so the radio passed its first test well — it could receive. The signals were coming in great, but how well would it transmit a signal? I tuned the unit very carefully until I found a clear frequency. My next step was to make a transmission. "CQ CQ CQ 10 meters, calling 10 meters phone, here is WD6GXZ wheelchair mobile 6, Southern California, calling CQ 10 meters and standing by for any call." A few anxious seconds passed, then out of the quiet and stillness of the band I heard, "WD6GXZ, WD6GXZ mobile 6, here is KA9COQ in Illinois, how copy?" Wow, I did it; I really made contact with another amateur 2000 miles away — using low power and from my wheelchair mobile! This had to be my greatest moment in Amateur Radio. I called KA9COQ back and told him about my venture with my wheelchair and converted CB radio.

The time and effort spent on this project has paid off; "the Handicapper's Special" turned out to be a great success. KA9COQ is one of the many amateurs that I have talked to from my mobile station. I can go outdoors now, get some sunshine and fresh air and have a good ragchew, all at the same time. What the future holds for me in Amateur Radio, I do not know. As long as there is an idea or challenge to be met, projects like mine cannot be far behind. GEM

*First licensed in 1978, the author has earned WAS and WAC awards. His non-ham activities include collecting stamps, coins and paper money. Other interests are reading, kite flying and building, stereo and video recording, and travel.*

A special thanks to QST MAGAZINE for a well done job on the editing of this article—as well as permission to reprint it in our club's newsletter "RF". (Original material from QST, December 1980).....

For all you 10 10 International members in the OCARC, watch your Summer quarterly news magazine from 10 10 International. Seems yours truly, even made this publication also. I have not seen the story yet myself, but it will be there I am told by CHUCK ALBRECHT NØCKW, EDITOR of the 10 10 NEWS BULLETIN.

#### New Call Sign:

On July 10th, 1981 John, WD6GXZ signed off the airwaves of amateur radio and became a semi silent key. Semi silent key you say! Yes, WD6GXZ is gone R I P. John has a new 2x2 call sign, after a wait of almost 4 months John received the call letters K E 6 C E. KING EDWARDS 6 CANNIBOL EATTERS. John cant wait to get into the next pile up and try the call out HI.

# How to pass a multiple choice test

Lee Price, K6PHT

How much do you need to know to pass multiple choice tests? Less than you might expect! You can "psych out" a multiple choice test by means of a few common sense rules. You must prepare yourself in at least three ways:

1. **PHYSICALLY.** Don't spend a lot of hours before the examination trying to cram all night and arrive exhausted at the examination. Get a good night's rest.

2. **MENTALLY.** Relax at the time of the examination. Remember that you need only 75 percent to pass. Also, remember there is another time coming. Treat the exam as a learning experience. You are taking it to see what it is like.

3. **STUDYING FOR THE TEST.** Use more than one source of study material and be sure it is up to date. No two authors express an idea in the same way. Buy good materials to study. Class study adds interest and motivation.

In taking the exam, don't read anything into the question that isn't there. First read the question while covering up the multiple choice answers. Ask yourself, "What is the question saying?" Then read the question again very carefully in conjunction with each of the multiple choice answers. In particular, watch out for expressions such as "not true", "not false", "incorrect", etc. Do not be too quick to pick an answer which is partly correct. Even though some answers may not be wrong, the proper answer is the one which is the most complete and the most nearly correct.

Go through the examination carefully and answer only the questions which are obvious to you. Remember that you have plenty of time. As you go through the

## EDITORS NOTE:

I found this article in the July edition of WORLD RADIO NEWS, and found it to be quite worthy of passing on to you, the club membership. I know some of you don't have to worry about upgrading, as a lot of you out there are already where you want to be in license class, but for the benefit of all the new Novices and Technicians who want to upgrade, please take a few minutes, read the article over. You may find it the best thing you ever did on your way to the top. There's a step 4 here and that is, HAVE CONFIDENCE IN YOURSELF! Keep telling yourself, I can do it, I will pass, without any doubt in my mind.

Remember the word FAILED, does not exist in Amateur Radio, especially on an exam. If you don't make it the first time, try it again, at a later time (usually 30 day intervals).

If you remember these simple rules and your theory, you too will come out those FCC doors with that prized ticket. GOOD LUCK.....

DE: EDITOR "RF"

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questions, you will find things that may help straighten out your thinking on the questions you skipped. If you let it simmer while you go on to another question, the computer in your sub-conscious will work on it and the answer will come. If you fatigue yourself at the beginning on difficult questions, you could suffer more wrong answers on other easier questions. Think on your scratch paper rather than in your head. It's more accurate. Double check to be sure that you have marked the answer sheet correctly. When you skip difficult questions, be sure to skip the corresponding spaces on the answer sheet. Be sure the number of the question corresponds to the number on the answer sheet. Answer every question, even if you

have to guess. If you can discard choices that are obviously wrong, you have improved your chances of guessing correctly.

Don't be afraid of failing. Taking the test didn't cost much. You can hit it again in 30 days. You might even get the same questions next time. Make notes, right after the exam of things you observed and what bothered you. Don't wait. Take the test again as soon as you can. Get someone to go with you. You would be surprised at the number of people who take the exam with a friend for the fun of it or on a dare, and end up with a new license!

73, and good luck! DE: WORLD RADIO NEWS.  
—Simi Settlers ARC

## WELCOME NEW MEMBERS:

The ORANGE COUNTY AMATEUR RADIO CLUB wishes to announce the new following members to our radio club ranks:

GREGORY ARTHUR-----WD6EWG

ERNEST FUERTE-----WA6GXV

BILL MONTGOMERY-----WA6ZSS

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.....

BRUCE ROSSIE-----KA6QON

ROBERT SHERMAN-----N6DWV

SUZIE SMITH-----Call pending

# OSCAR-7 reaches end of life

Norm Chalfin, K6PGX

Verne Riportella, WA2LQQ — AMSAT vice-president — has reported that in view of the fact that AMSAT/OSCAR-7 has not responded to commands for a couple of weeks as of 24 June, it is not believed the bird will come back to life again. No one has heard telemetry from the spacecraft, although a worldwide watch was mounted.

So, at the ripe old age of 6.6 years the AMSAT/OSCAR-7 spacecraft must be bid adieu. AMSAT/OSCAR-7 was launched on 15 November 1974 from Vandenberg Air Force Base at Lompoc, California, aboard a Delta Rocket with NOAA-4 as the host. Along with AO-7 was a Spanish spacecraft, the INTASAT intended for science experiments.

During its lifetime (OSCAR-7 was designed to last three years), AO-7 was used for the transmission of medical data in the form of EKGs sent coast to coast; it also participated in a Canadian experiment begun with AO-6 to determine the feasibility of locating ELTs from downed aircraft. The latter demonstrated that a downed craft could be located in about an eighth of the time many aircraft would require criss-crossing the area to find the disabled craft.

It has been reliably estimated that several million contacts have been made through AO-7 by tens of thousands of amateurs during its more than 30,000 useful orbits.

A new trans-equatorial propagation mode was discovered when Edgar Mueller, YV5ZZ, heard Amleas Sapara, LU7DJZ's 2-meter uplink to AO-7 in Mode A in November 1976. An unprecedented series of satellite-to-station links occurred when stations transmitting to AO-7 in Mode B were picked up by the then operating OSCAR-6 in the 2-meter band and translated down to 39.45 MHz.

APT weather satellite pix were transmitted through AO-7 in April and May 1976 by DL4VLB. Dave Clingerman, W6QAL transmitted through it from his airplane. Fred Merry, W2GN transmitted from his aeromobile, and Richard Long, WA4JID from his marinemobile. QRP tests on Mode B demonstrated that a few milliwatts ERP produced usable downlink signals. Thereafter, many QRP QSOs went through AO-7. With a "Summa Cum Laude," we say "vale" to AMSAT/OSCAR-7. DE WORLD RADIO. □

## Unlisted call?

Bob McGarvey, WB2EVF

You hear the strangest explanations on the radio. There was the guy whose call was questioned by someone, since it was by its nature an old one and did not appear in the Callbook. His answer: It's an unlisted call.

Huh? He went on to tell his auditors the FCC and the Callbook are just like the telephone company and the phone book. You can ask for and get an unlisted call if you don't want to be bothered with QSL cards, circulars and such nuisances.

Oddly enough, no one seemed to believe him.

—The Home News DE WORLD RADIO □



ORANGE COUNTY AMATEUR RADIO CLUB, Inc.  
POST OFFICE BOX 95  
ORANGE, CALIFORNIA 92688

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FIRST CLASS MAIL!!!  
DATED MATERIAL!!!



FIRST CLASS MAIL